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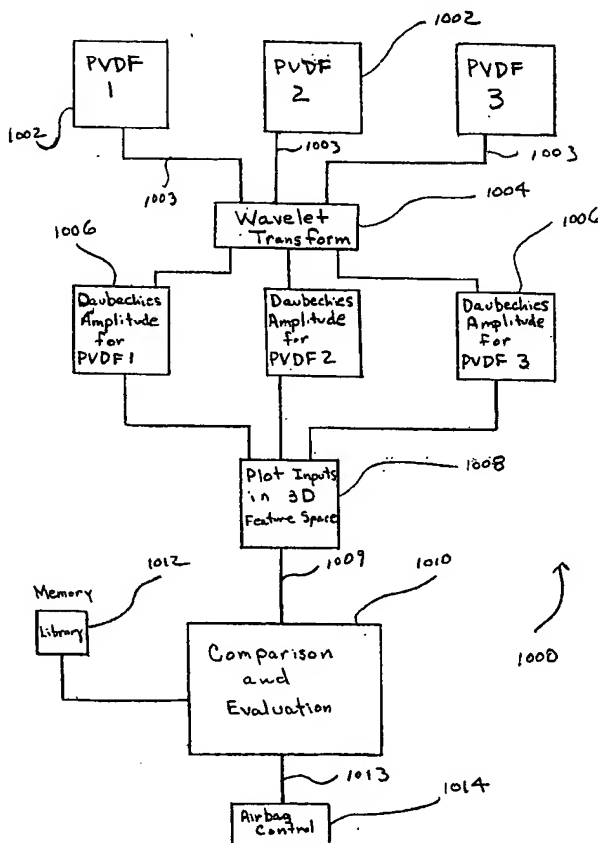
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[Continued on next page]

(54) Title: **CRASH SENSING VIA PIEZOELECTRIC SENSORS**



(57) Abstract: A system and method for characterizing piezo-
electric sensor responses for automotive vehicle crash analysis, is
disclosed. The method employs Daubechies wavelet analysis to
plot signal response amplitudes in three-dimensional space of at
least one piezoelectric sensor. A cluster, signifying a combination
of Daubechies amplitudes of the at least one piezoelectric sen-
sor in three-dimensional space, is compared to reference clusters
stored in the automotive vehicle. Based on results from compar-
ing the cluster to the reference clusters, instructions are transmit-
ted to an occupant restraint control system in the vehicle to deploy
a specific airbag at a specific power level.



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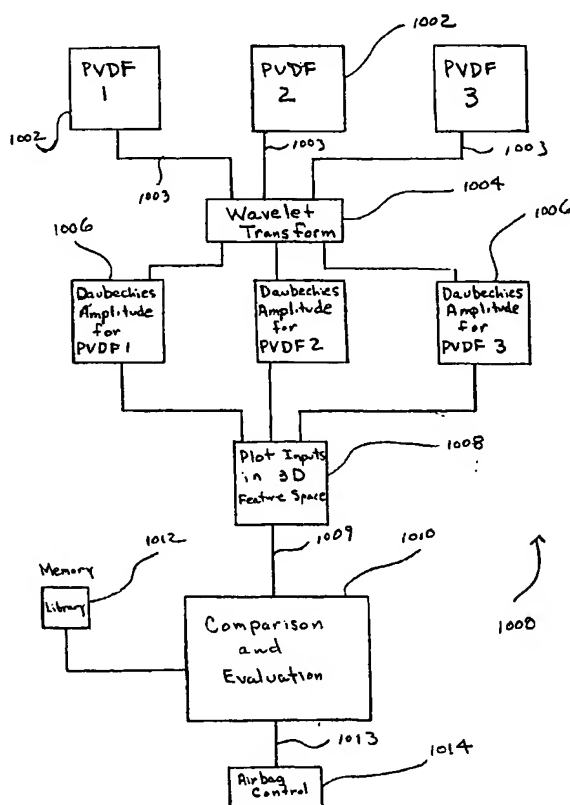
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